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ABSTRACT

This study assesses the influence of an elaborative vs. non-elaborative teaching style on children's nursery school behavior. (Elaborative teachers elicit more comments from the child, and offer more options for solving problems than non-elaborative teachers). Subjects, 24 white children of welfare mothers, were assigned to an elaborative (experimental) or non-elaborative (control) group. Experienced teachers conducted four 20-minute sessions each day for 17 days, modifying their teaching style depending on the group being taught. Recordings and observations of teaching style and child verbalizations were made. Results indicated reliability of teaching styles over time and greater frequency of elaborative statements in response to teacher elicitation for the experimental group. A possible modeling effect of teachers on children was suggested for both groups. Results on pre- and posttests designed to measure problem solving abilities showed few differences between the two groups. Greatest differences appeared on verbal tasks. It was concluded that nursery school teachers who teach elaboratively and give positive and individualized responses to children's verbalizations have children who exhibit elaborative behavior in class. (DR)

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THE EFFECTS OF MANIPULATION OF TEACHER COMMUNICATION STYLE IN THE PRESCHOOL

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Two assumptions underlying educational programs for young children are that the effectiveness of a program will be determined 1) by the kind of curriculum materials and activities presented the children, and 2) by the teaching skill and style of the adult presenting the materials. The investigation of the first of these factors has been given much attention recently. The second of these variables, however, has rarely been studied systematically.

Robert Hess and Virginia Shipman (1965) have studied communication style of mothers. These investigators used Basil Berstein's formulation to identify two codes of mother-child communication: a restrictive code characterized by limited, stereotyped statements which are easily understood by anyone but convey little information, and an elaborate code, characterized by more detailed statements which convey more information or expression of ideas, and are generally individualized to the listener. While a restrictive code is thought to engender an impulsive, inflexible approach to problem solving, the elaborate code is hypothesized by Hess and Shipman to foster initiative, reflection and flexibility in problem solving.

The purpose of this study is to extend the ideas of Hess & Shipman to the preschool situation. Although Hess & Shipman contrasted elaborate

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with restrictive communication styles, on the basis of our observations of teacher verbal behavior, the authors prefer to regard the basic differences in teaching style to lie in the amount of elaboration and elicitation offered rather than in the amount of restriction and direction. Thus the Elaborative teacher may use about the same number of restrictions and directions but use proportionately more elaboration, elicite more comments from the child, and offer more options for solving problems. For the purpose of this study then, tne two teaching styles are referred to as Elaborative and Non-Elaborative.

This study was designed to assess the influence of an Elaborative vs. Non-elaborative teaching style on children's nursery school behavior. A four-week experimental teaching program was instituted during which one group of children was taught in a Elaborative teaching style and another was taught in a Non-elaborative style. Children were observed for the amount of time they spent in curriculum activities and the verbal behavior of both teachers and children was observed and tape-recorded throughout the four-week period. In addition to observations and recordings, five pre- and posttest of problem solving strategies were administered to the children who participated.

Method

Observation Scheme

Prior to the present study, 10 students and trained nursery school teachers teaching in the Laboratory School of the Institute of Child Development, at the University of Minnesota, were observed for approximately 45 minutes each over a 10 week period of time. All verbal communications to children were recorded verbatim by the use of transister microphones, and the statements were classified as to the intent of the communication.

It was found that virtually all teacher communications could be classified reliably into one of the following four main categories: Directive statements were those involving a minimum of information necessary for the teacher to direct the action or behavior of the child. Elaborative statements were those which conveyed more information than was essential for completing a task, reasons for a request or direction, labels, and descriptions. Eliciting statements consisted of requests from the teacher for verbal feedback from the child. Non-information support statements included only the statements which were intended to show recognition of a child, to indicate hearing his statement or question, but conveyed no added information.

On the basis of this classification system, teaching styles were identified along an Elaborative-Non-elaborative dimension, the Elaborative style containing more statements of the Elaborative and Eliciting kind and the Non-elaborative style containing fewer such statements and proportionately more direction statements. These styles were then simulated in the training phase of this study.

The observation scheme described above was also found to be appropriate for categorizing children's verbalizations. With only a few modifications, virtually all child statements could be reliably classified. For the present study, in using this observation scheme with child verbalizations, the instigation of each child statement was indicated as Spontaneous, Teacher Elicited, Child Elicited, or Egocentric in nature.

Pre-Posttest Measures

A pre- posttest battery of tasks was developed on the basis of Hess & Shipman's hypothesis that differences in maternal teaching styles would have an effect on the child's tendency to reflect on alternative solutions to problems and to choose among various options. The battery of five tasks was aimed at assessing whether Ss in Group I were able to use more

alternative solutions to solve problems than Group II Ss, following the training sessions.

The battery consisted of 1) a Circuit Board task in which the child had to search out the correct combination of buttons to turn on a light; 2) a Maze task in which the child was asked to find alternate routes to a goal; 3) a Similarities task requiring the S to describe in several ways how pairs of objects were alike; 4) a Story telling task requiring the child to generate variations or elaborations on a story theme; and 5) a Puzzle task in which the child made a choice between an easy and a difficult puzzle. The battery was administered before the teaching sessions began and again following the last teaching session.

Subjects

Ss were selected from a day care center for children whose mothers were on welfare. The teachers in the center were felt to be fairly Non-elaborative in their style and during the summer provided relatively little structured curriculum. Twenty-four white children were tested on the pretest and included in the sample. The children ranged in age from three years, six months to five years, three months at the time of the study. Each S was given the pretest battery and on the basis of his total score was placed in a rank ordering of Ss. From this rank ordering matched pairs were randomly assigned either to Group I (to be taught in the Elaborative style) or Group II (to be taught in the Non-elaborative style).

Teaching Sessions

The teaching phase of the experiment lasted for 17 days during which the teachers conducted four 20-minute sessions each day, two Elaborative and two Non-elaborative, with six children in each session. The same two skilled, experienced female nursery school teachers taught all sessions, modifying their teaching style depending upon the group being taught.

Every effort was made to keep the teaching situation pleasant, non-punitive and natural for all groups within the confines of the teaching style being used.

For the curriculum four different activities were brought to the school each day. Of the four, two activities were considered the teaching activities and two fillers.

During the teaching sessions extensive recordings were made. Each teacher wore a transister microphone and all her verbalizations were recorded. At the same time two observers did time sampling observations on both teaching style and child verbalizations. Between observer reliability was approximately 90% and the observers used the tape recordings to check their observations. The observers also recorded 15 minute time samples of child time-on-task every other day. The observer recorded each child's time on a particular task and noted changes to other activities during the 15 minute period.

Results

The results of this study can best be presented in three sections: 1) Observations of the teaching styles, 2) Child verbalizations, and 3) Pre- posttest measures.

First, the observations of the teacher throughout the sessions indicated that the teaching style differences were reliable over time and that the two styles were discriminable. Significantly more Elaborative, Eliciting and Non-Information Support statements were used in the Elaborative style whereas significantly more Directive statements were used in the Non-elaborative style. In addition, in the Elaborative style the teachers gave significantly more total verbalizations.

The observations of child verbalizations support the hypothesis that subjects in Group I (the Elaborative Group) would show a greater frequency

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of Elaborative statements. Also as anticipated, more of the Group I child verbalizations were in response to teacher elicitation than was true for Group II, indicating that children did respond to their teachers' attempts to elicite comments from them.

The graphs on the handout indicate verbalizations of the groups classified into Kind of statement and Instigation of statement. The analysis of varience showed a significant interaction between group and kind of statement, group and instigation, as well as a three-way interaction between group, kind of statement, and instigation. Inspection of the data indicates that Teacher Elicitation is specifically responsible for the greater frequency of Elaborative comments of Group I children since a markedly greater number of Teacher Elicited elaborations characterized this group (compared with Group II) while the number of Spontaneous elaborations of the two groups is essentially identical.

It is interesting to note that Group II subjects gave more total Spontaneous comments than Group I subjects, but this difference is due largely to the significantly greater number of spontaneous Directives given by this group, not to the use of Spontaneous elaborations. This finding should probably not be interpreted as indicating that the Elaborative style kept the children from spontaneously verbalizing but rather that more of the conversation in the Elaborative group was within the context of the activity and therefore, Teacher Elicited. The child's comment did not have to be in response to a teacher's question to be scored as Teacher Elicited, but rather in response to the activity or what the teacher was talking about.

The data also indicated that Group II children (the Non-elaborative group) gave a significantly greater number of total Directive statements than Group I children. This finding, together with the greater elaborative-

ness of Group I Ss, suggests a possible modeling effect of teachers on children since, for both of these variables, the two groups of children differed from each other in the same way that their teachers differed in their styles of teaching.

Results on the pre- and posttest tasks administered to the children showed few differences between Group I and II. While for all five tasks, Group I children showed improved performance from pre- to posttesting compared with Group II children, the differences were significant for measures involving only two of the five tasks.

For the Similarities task, where Ss were asked to give several reasons why pairs of objects were alike, a t-test on the difference between pre- and posttest difference scores was significant. Group I showed a significant gain in the number of plausible similarities from pre- to posttest and Group II gave significantly fewer plausible reasons from pre- to posttest. The two groups had not been significantly different on the pretest. On the Story telling task, Group II children showed a significant decrease in story elaboration as measured by the number of words used in telling a second story in the posttest. Group I children did not show this decrease; in fact, increased slightly in the number of words used in the second story.

The results of the pre- posttest measures indicate that the greatest differences in performance were seen on the two verbal tasks which is consistent with the child verbalization data and may suggest that the non-verbal tasks were less related to the skills fostered by the training program. It is interesting to note that group differences on the verbal tasks are due in part to a decrease in verbal output of the Group II children from the pre- to posttest measures. It is possible that participation in the Non-elaborative group actually discouraged the child from verbalizing in the performance of these tasks during the posttest session.

In summary, this study suggests that nursery school teachers who teach elaboratively and respond positively to their children's elaborative verbalizations, have children who behave more elaboratively in their classrooms, and, in some instances at least, approach problem solving tasks more elaboratively than children trained in Non-elaborative ways.

The study also suggests a promising approach to assessment of the school experiences in which 1) the effects of the experience are assessed in part through the monitoring of the child's performance directly in the school environment, and 2) the specific aspects of the school program to be assessed are defined and systematically varied. Both approaches would seem promising if more definitive work is to be done in assessing school effects on young children.

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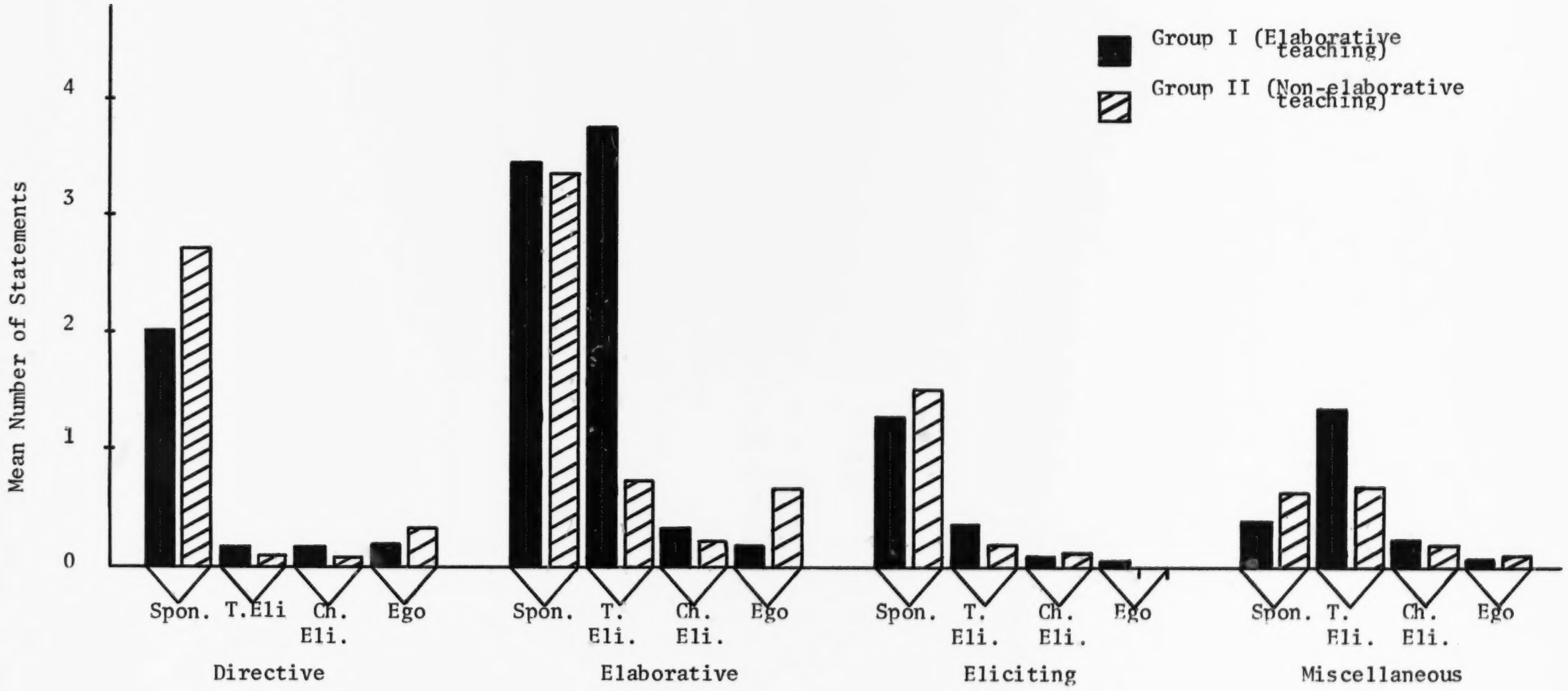
Mean Number of Child Verbalizations by Group, Kind of Statement, and Instigation



Kind of Statement: Directive, Elaborative, Eliciting, and Miscellaneous Non-information.

Instigation of Statement: Spontaneous, Teacher Elicited, Child Elicited, and Egocentric.

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